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Agdex 142/33-31

Varietal Description of Radley Field Pea

Origin and breeding

Radley, tested as SS5, was developed by Booker Seeds Limited of Sleaford Lincs, United Kingdom. It was developed using single plant selection from the cross 463 paH/Pa 314 in 1975. Single plant selections were made in the F5 after overwintering for hardiness, standing ability, suitability for human consumption and high yield. After progeny testing, one line was selected for Breeder seed production in 1983.

Varietal characteristics

Plant characteristics

Growth habit: determinate

Anthocyanin: absent

Vines: intermediate length; rather slender

Stems: medium length

Leaves: no leaflets; dark green foliage; normal leaf wax; absent to slight leaf separation

Stipule: present; semi-leafless; color mottling

Flowers: white, green vein color; 16 nodes to first flower

Pods: light green; pointed; medium length; slight curvature; parchment present at second internode; ten ovules

Maturity: early; earlier than Century and Trapper

Environmental resistance: has the same cold tolerance as any other European variety

Disease resistance: susceptible to NIAB race 1 and Dutch rate 1 Fusarium (*Fusarium* spp.); susceptible to the UK race of powdery mildew (*Erisyphe polygoni*) while showing resistance to the French race of the same disease. Radley shows resistance to downy mildew (*Peronospora viciae*)

Seed characteristics

Hilum: white

Cotyledon: small, green

Seed: round, smooth with some dimpling; simple starch grains

1000 seed weight: 220 gms

Bleaching resistance: very good

Performance

Radley is a good yielding variety with good standability and acceptable maturity.

Maintenance of breeder seed

Booker Seeds Limited, Essex, United Kingdom

Canadian distributor

Columbia Seed Co. Limited

Recommended by

Prairie Registration Recommending Committee

Copies of this and related publications may be obtained from the Print Media Branch, Alberta Agriculture, 7000 - 113 Street, Edmonton, Alberta T6H 5T6 or Alberta Agriculture's District Offices.

Table 1. Agronomic performance of Radley and check varieties, Field Peas Co-operative Yield Testing*

Variety	Yield (kg/ha)	Princess (%)	Century (%)	Height (cm)	Maturity (days)
Radley	2431	81	98	50	87
Century	2472	82	100	81	90
Trapper	2548	85	103	73	90
Victoria	2844	95	115	65	88
Princess	2993	100	121	82	82

*Locations: Morden, Portage La Prairie, Brandon, Melfort, Carrot River, Scott, Lashburn, Indian Head, Regina, Saskatoon, Brooks, Bow Island, Fort Vermilion, Camrose, Morinville, Vermilion, New Liskeard and La Pocatiere

Table 2. Agronomic performance of Radley and check varieties, Special Purpose Co-operative Test*

Variety	Yield (kg/ha)	Princess (%)	Height (cm)	Maturity (days)
Radley	3145	110	54	89
Princess	2854	100	46	87
Tara	3555	124	90	92
Victoria	2490	103	80	92

*Locations: Morden, Portage La Prairie, Indian Head, Melfort, Saskatoon, Hagen and Brooks

Table 3. Yield (kg/ha) of Radley and check varieties, Alberta Special Purpose Pea Trials, 1988

Variety	Lacombe	Stettler	Calmar	Standard	Mean	Princess (%)
Radley	4539	3453	5549	3913	4363	106
Tara	4170	2392	4591	3330	3620	88
Victoria	3237	2883	3734	3361	3304	81
Princess	4471	2509	4616	4752	4087	100

Table 4. Yield (kg/ha) of Radley and check varieties, Co-operative Field Pea Trials, 1988

Variety	Fort Lacombe	Stettler	Calmar	Vermilion	Mean	Princess (%)
Radley	4391	3051	4452	1830	3431	104
Century	3625	3233	3841	2426	3281	99
Trapper	3588	3389	3888	2802	3416	103
Victoria	4228	3490	5118	2545	3845	116
Princess	4028	2852	4669	1688	3309	100

Table 5. Yield (kg/ha) of Radley and check varieties, Alberta Provincial Trials, 1988

Variety	Namao	Morinville	Dapp	Barrhead	Vermilion	Mean	Princess (%)
Radley	3567	4443	4331	3445	3747	3907	119
Tara	3670	3709	4109	3374	—	3715	113
Century	2318	2918	3008	2360	3520	2825	86
Trapper	2109	2644	3091	3284	3243	2874	87
Victoria	3205	3573	3774	3151	—	3426	104
Princess	3532	3575	3151	2865	3327	3290	100

Table 6. Yield (kg/ha) of Radley and check varieties, Alberta Provincial Replicated Trials, 1985-1987

	1987			1986				1985
Variety	Morinville	Picture Butte	Mean	Morinville	Vermilion	Camrose	Mean	Bow Island
Radley	3602	3198	3400	5382	7425	7005	6604	7175
Tara	—	1675	1675	—	—	—	—	—
Century	2251	—	2251	—	—	—	—	5663
Trapper	—	1784	1784	—	—	—	—	5816
Victoria	4028	1590	2809	—	—	—	—	—
Princess	3149	2431	2790	4797	6700	6572	6023	—